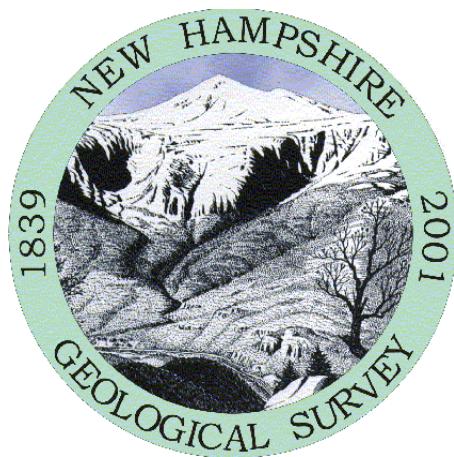


New Hampshire Groundwater Level Monitoring

February, 2019



**New Hampshire Geological Survey
29 Hazen Drive, PO Box 95
Concord, New Hampshire 03302-0095**

April 22, 2019

GROUNDWATER CONDITIONS SUMMARY

According to the Northeast Regional Climate Center at Cornell University, New Hampshire received an average of 2.93 inches of rain during the month of February, which is -0.10 inches below normal or 97% of normal based on the 1981-2010 precipitation records. Precipitation was evenly distributed between the northern and southern portions of the state. The state is currently free from drought and abnormally dry conditions according to data released by the National Drought Mitigation Center.

The overburden wells, or wells that monitor the unconsolidated materials above bedrock, are indicating normal to high groundwater levels over the majority of the state, with the exception of Colebrook which remains low, and Newport which fell to below normal this month. The Lancaster well was unable to be measured due to ice cover. The overburden wells at Barnstead, Concord (CVW-04), Deerfield, Epping have been above normal to high over the last six month period. The data show that all of the bedrock wells in the state are normal to high. The Rindge wells have consistently been high during the last six month period.

The New Hampshire Geological Survey's groundwater monitoring network (Figure 1) currently includes 11 bedrock (Figure 2) and 20 overburden (Figure 3) observation wells, all of which are measured monthly by hand. Using the monthly hand readings, monthly averages and percentile statistics were calculated and are summarized in Figures 1 through 3, in the following hydrographs*, and in Tables 1 and 2.

*The hydrographs show the following data over a period of six months: (1) current groundwater depths, (2) the monthly average over the period of record (POR) of the well, and (3) color-coded statistical ranges over the POR of the well. Note the POR is listed below each month's column on the chart and reported as the number of measurements for that respective month. This might include multiple readings in the same month and does not include any gaps in data so therefore may not represent a continuous period.

February 2019 Groundwater Levels



- High
 - Above norm
 - Normal
 - Below norm
 - Low
 - Not Analyzed
- Counties

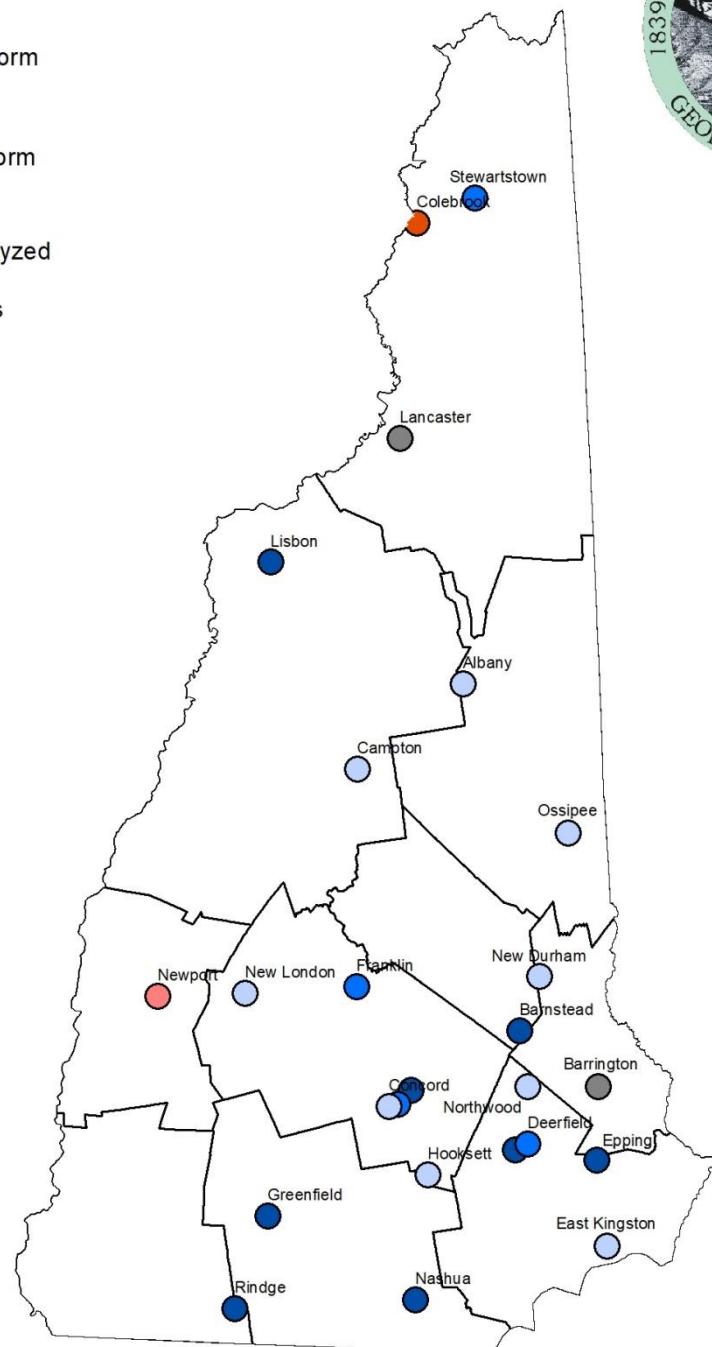


Figure 1. Groundwater Monitoring Network showing groundwater levels with respect to drought areas defined by the National Drought Mitigation Center.

February 2019 Groundwater Levels Bedrock Groundwater Conditions

- High
 - Above norm
 - Normal
 - Below norm
 - Low
 - Not Analyzed
- Counties

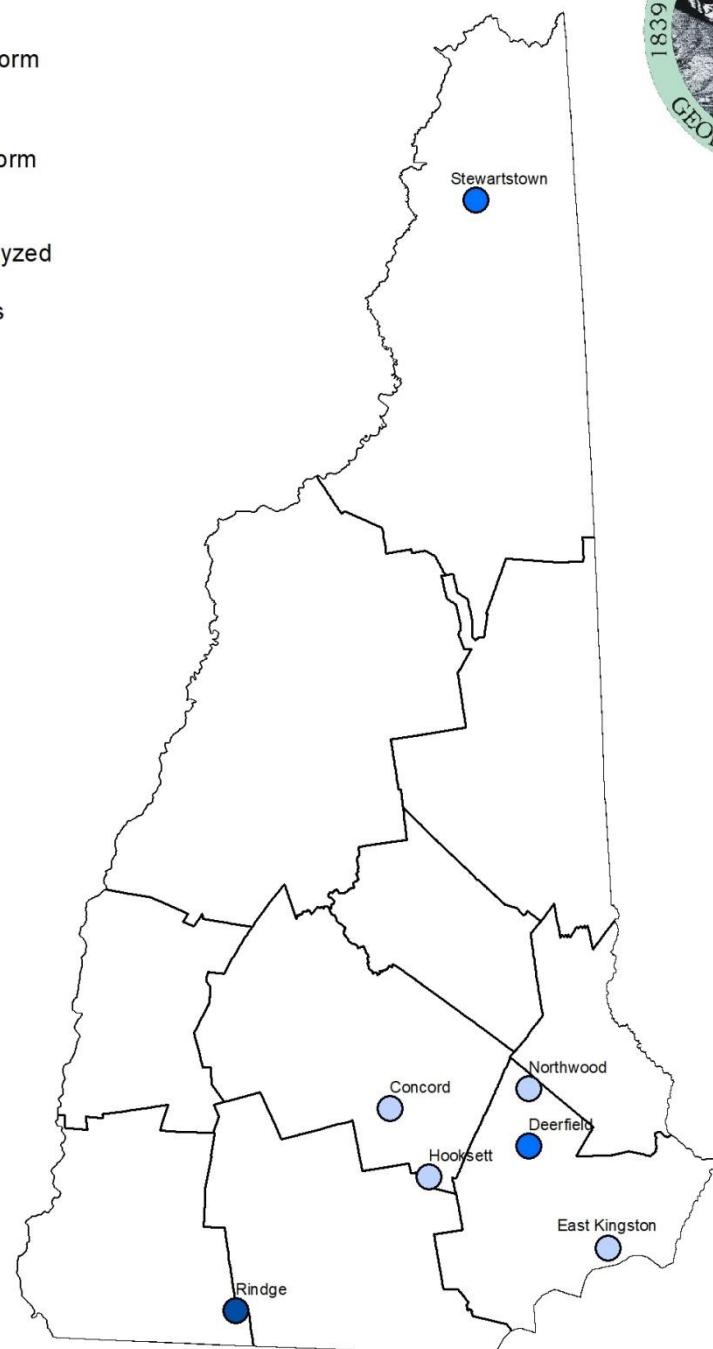


Figure 2. Bedrock wells showing groundwater levels with respect to drought areas defined by the National Drought Mitigation Center. Note: Points at East Kingston, Concord, Stewartstown, and Rindge show coupled bedrock wells.

February 2019 Groundwater Levels Overburden Groundwater Conditions



- High
 - Above norm
 - Normal
 - Below norm
 - Low
 - Not Analyzed
- Counties

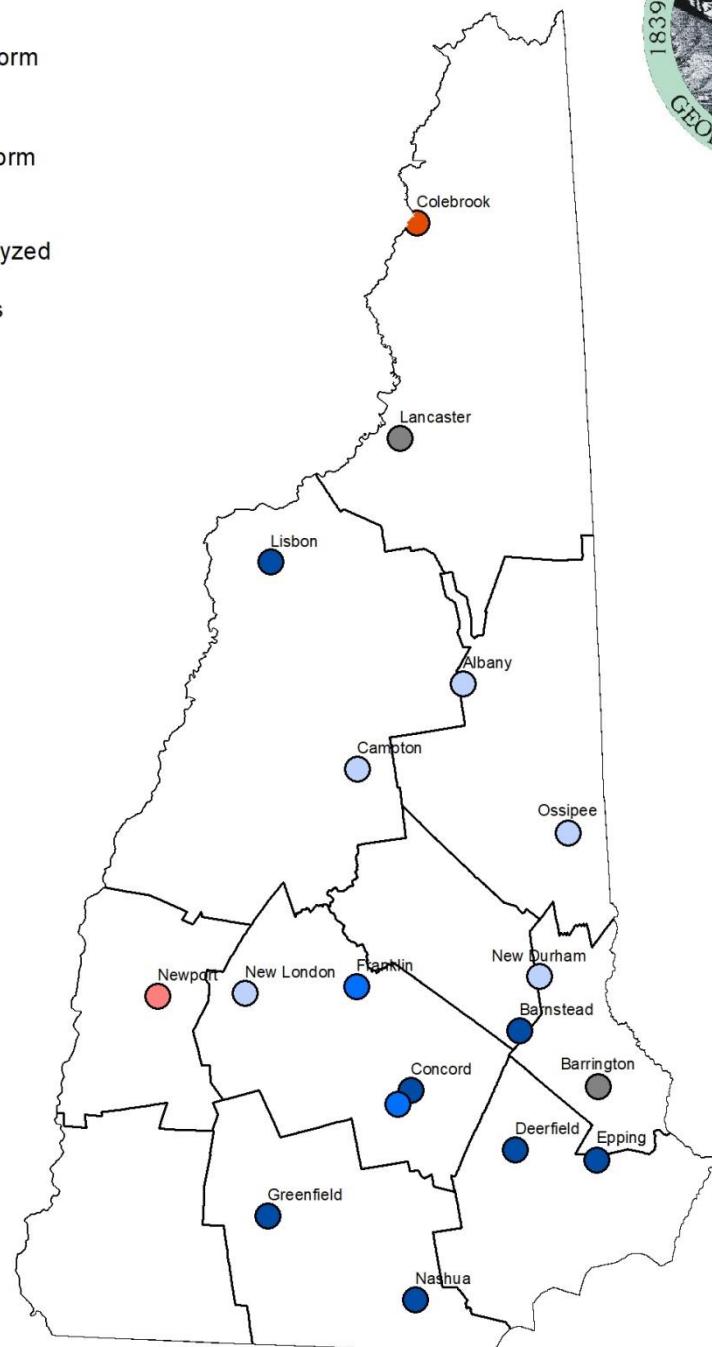
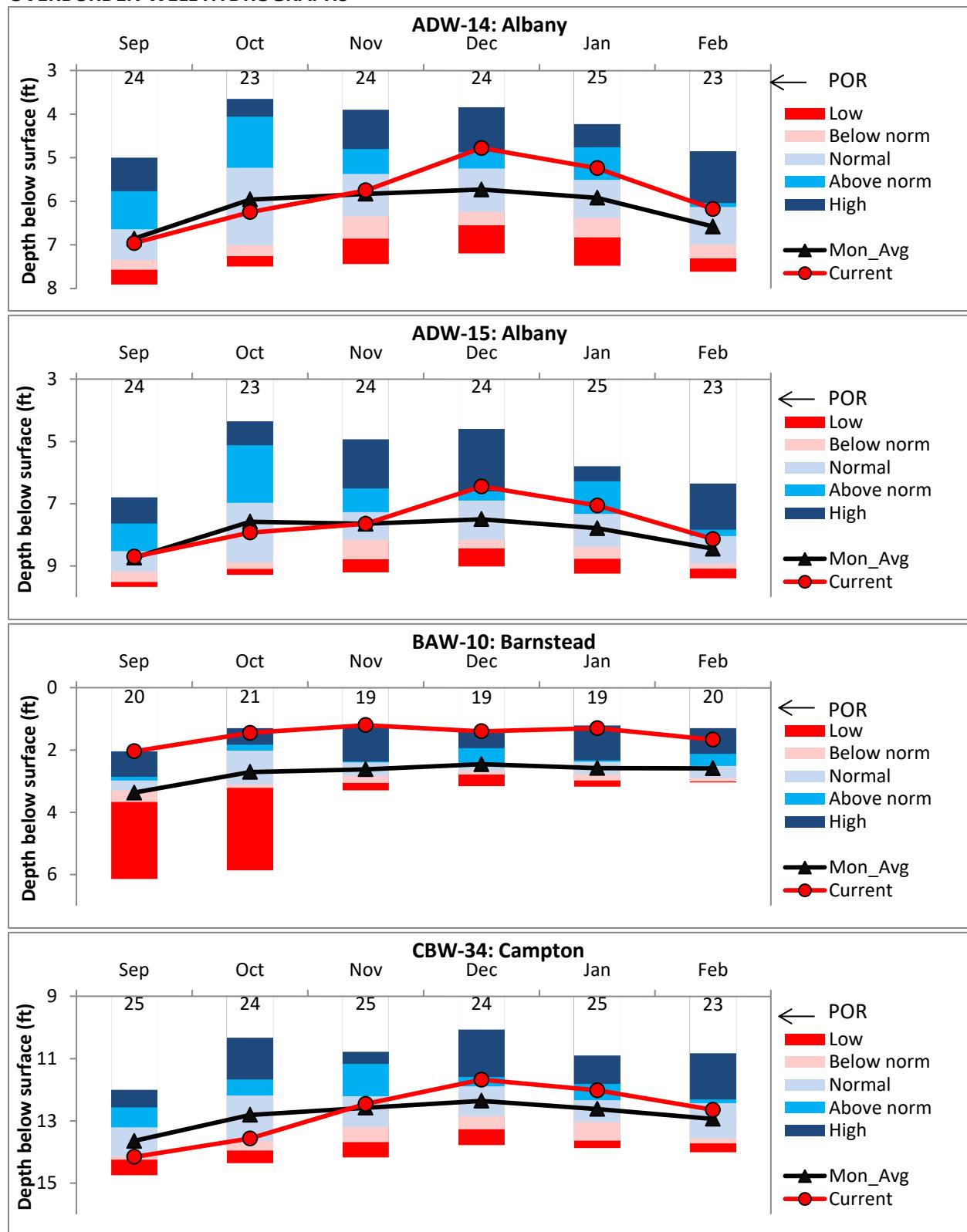
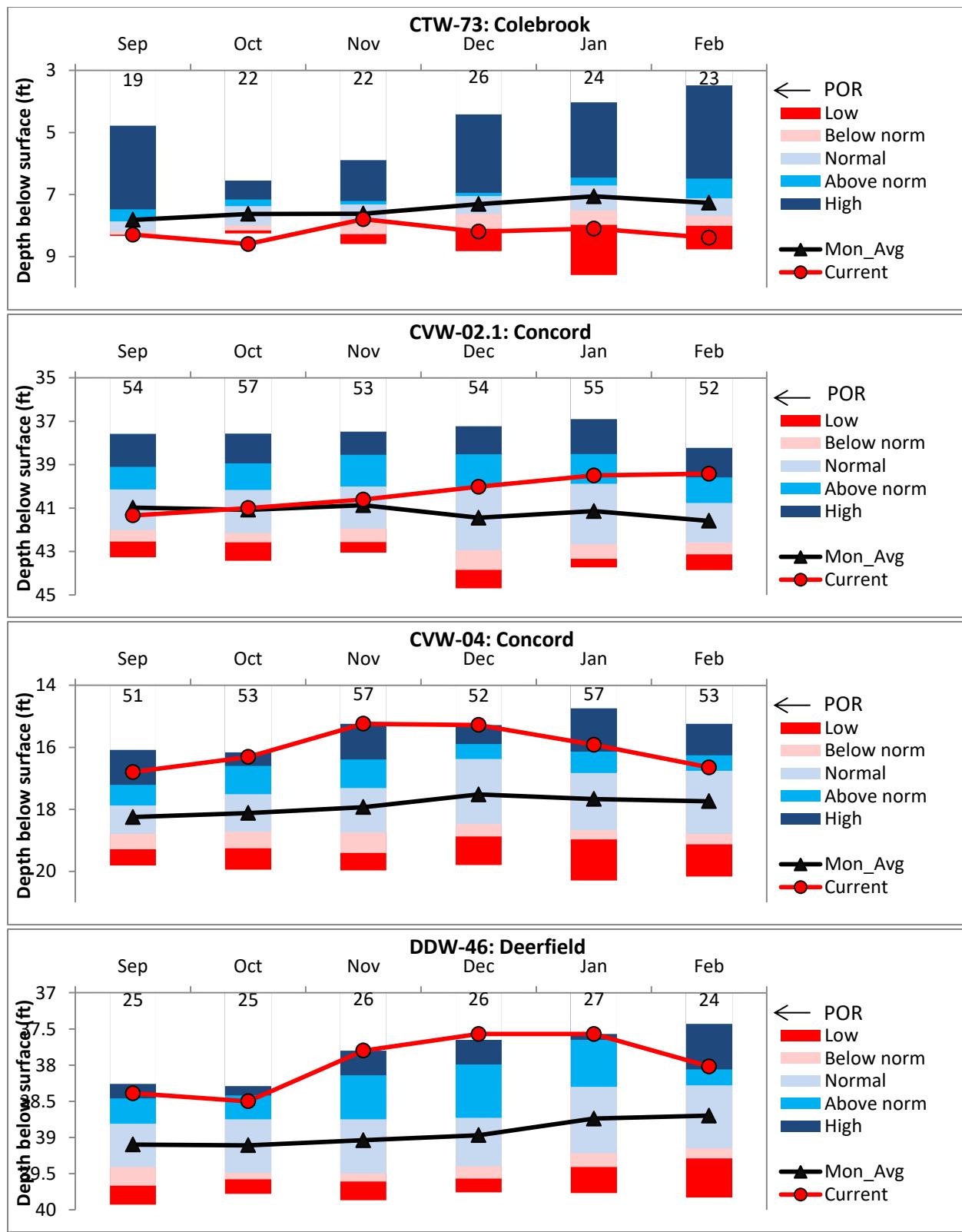
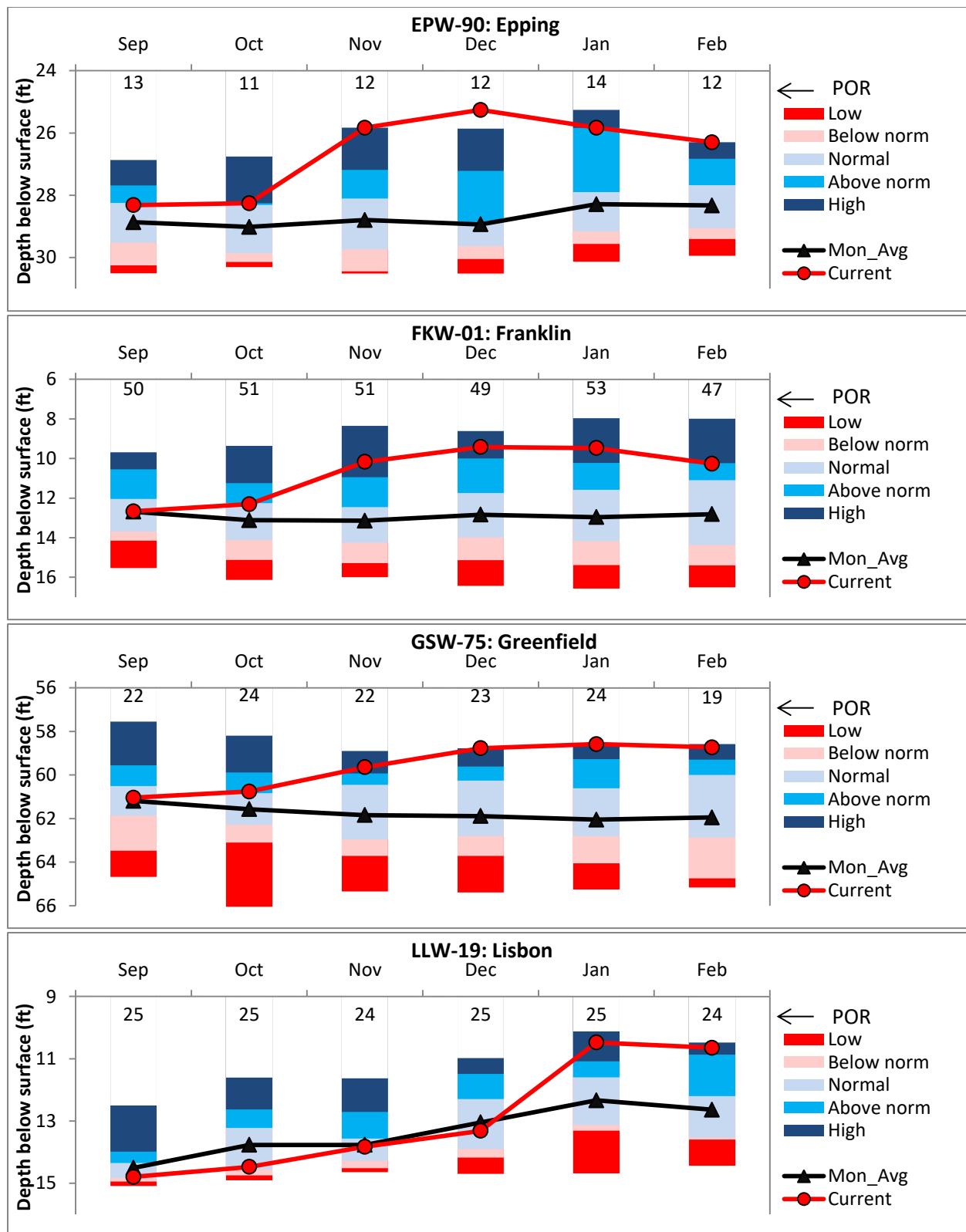


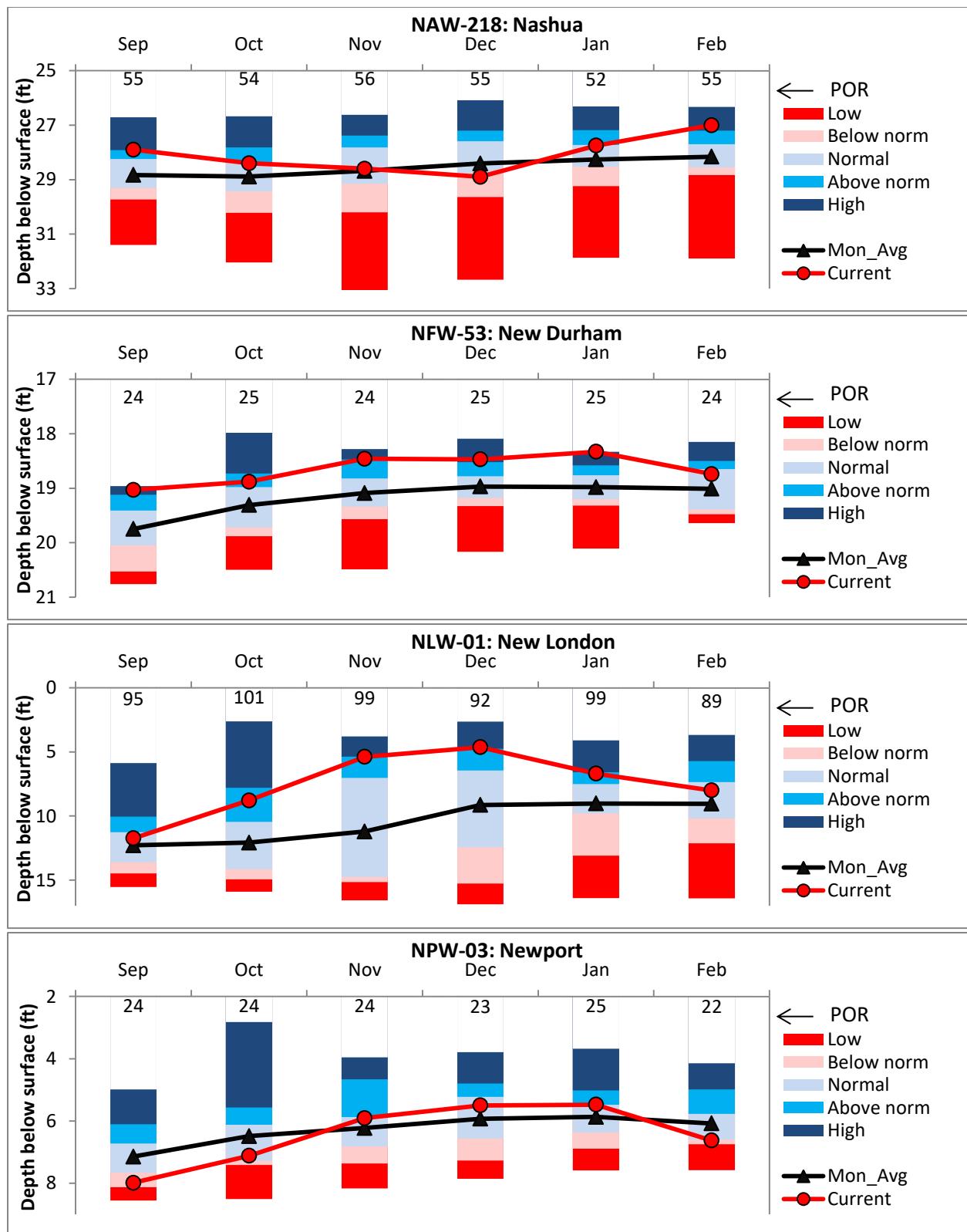
Figure 3. Overburden wells showing groundwater levels with respect to drought areas defined by the National Drought Mitigation Center. Note: Points at Newport and Albany represent couplets.

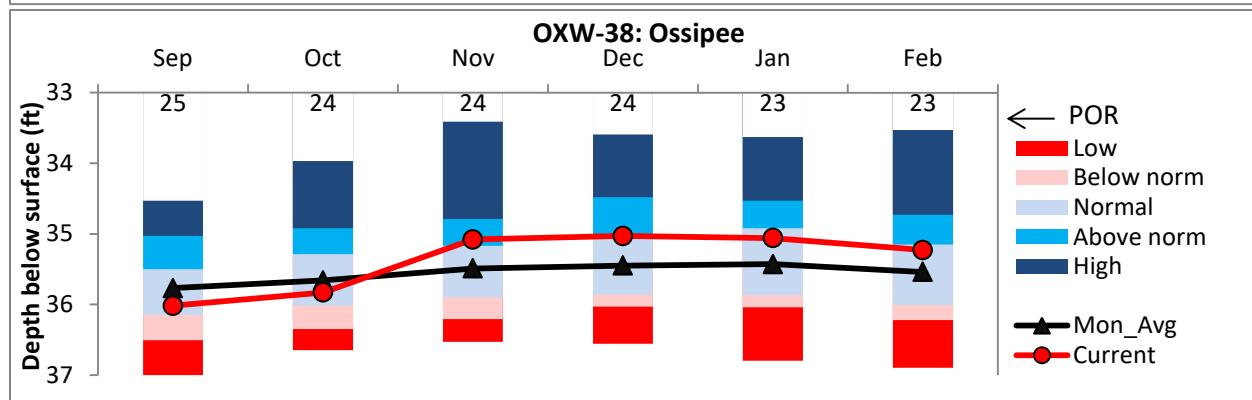
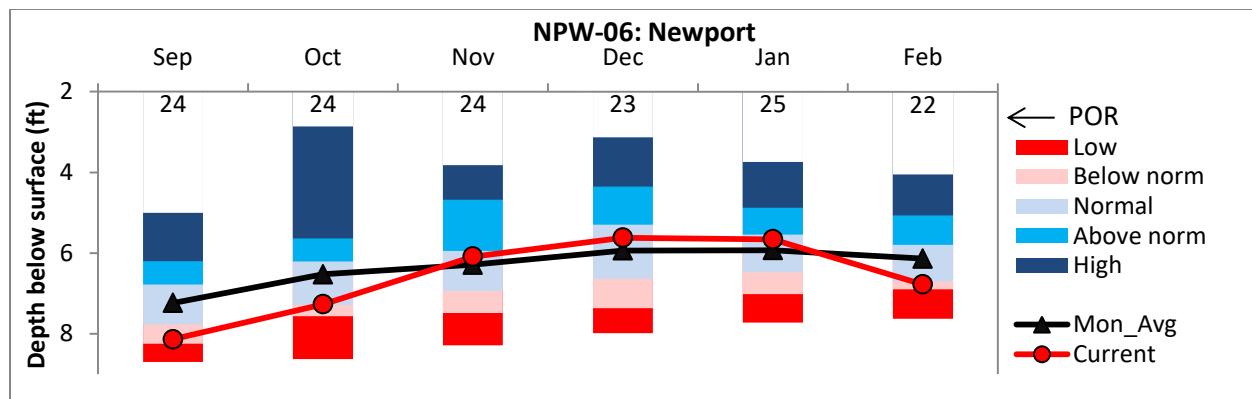
OVERBURDEN WELL HYDROGRAPHS



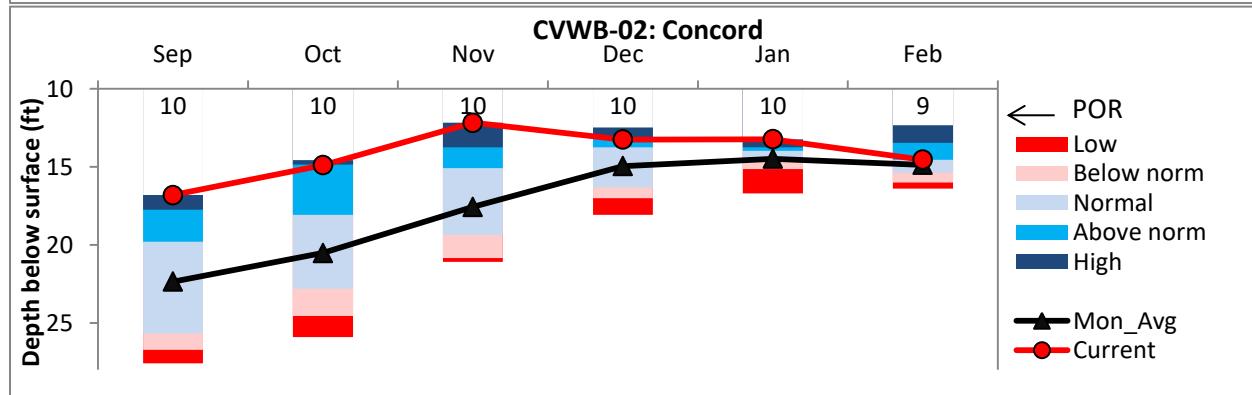
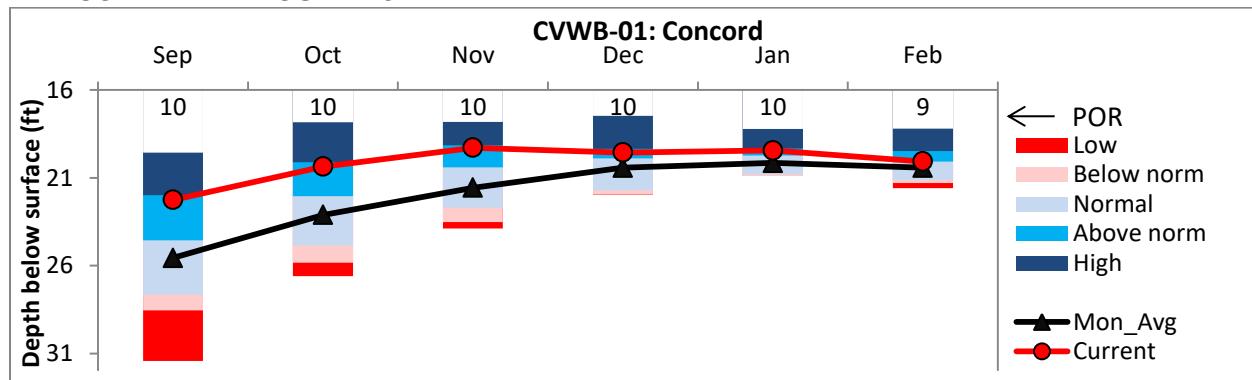


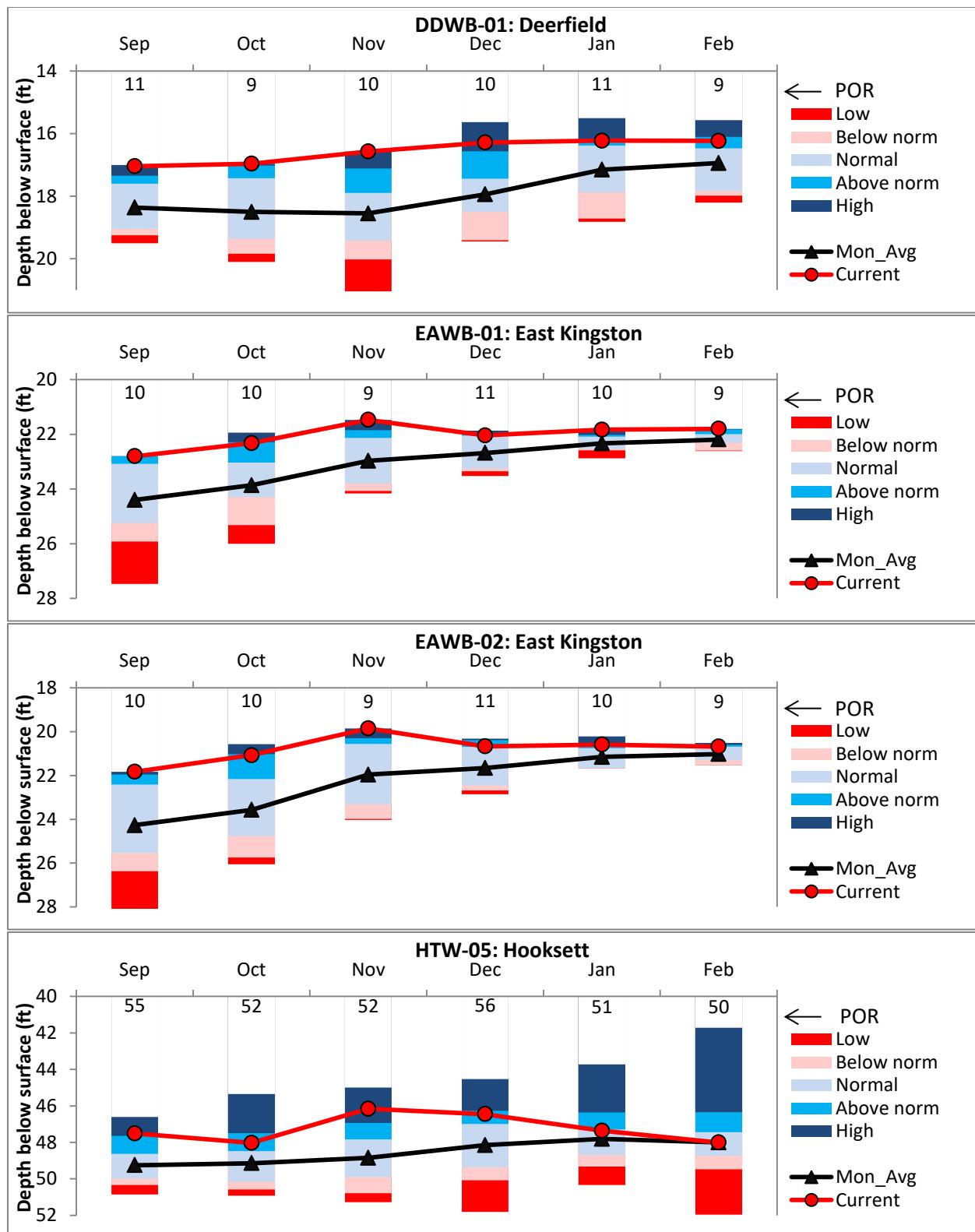


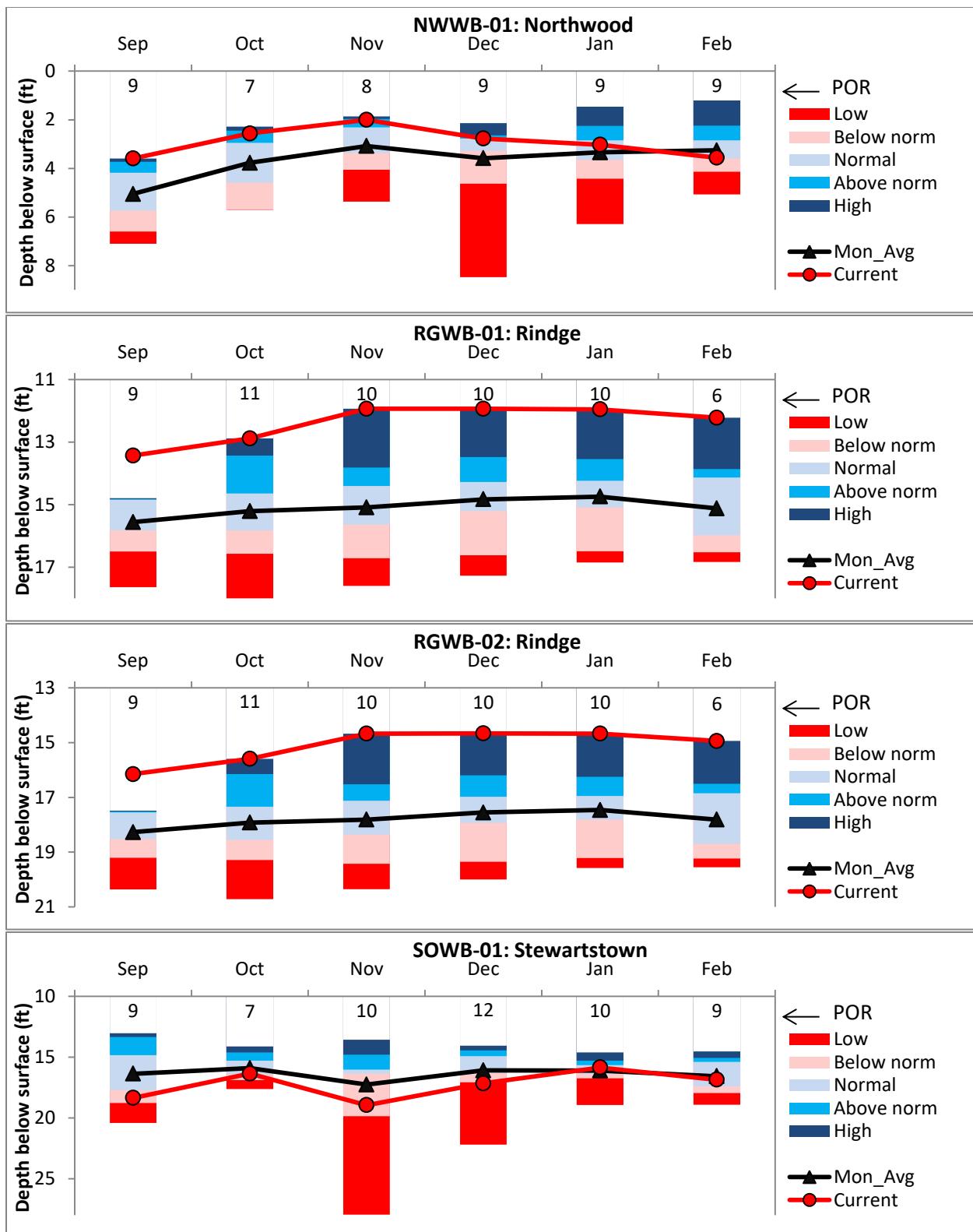




BEDROCK WELL HYDROGRAPHS







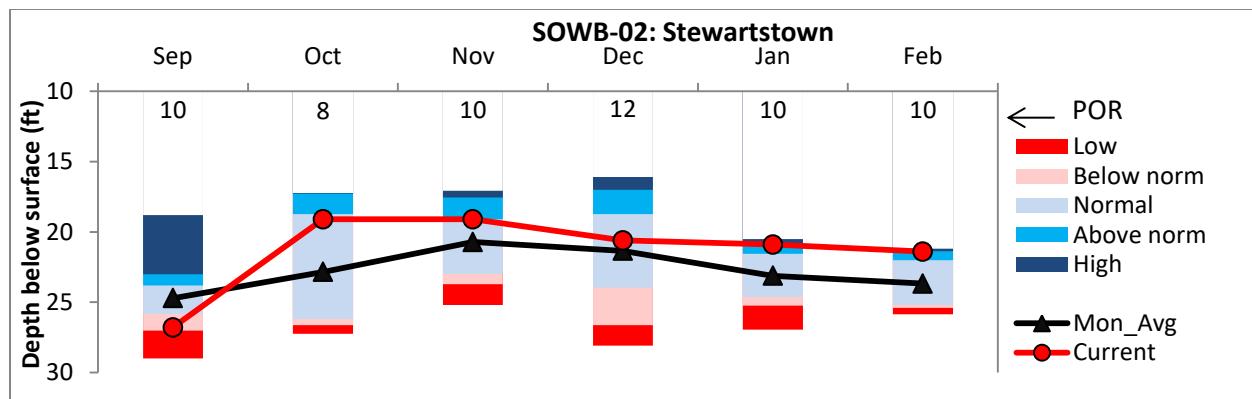


Table 1. Summary of groundwater levels in overburden wells

Well	Region	Well type	Screen/ open Interval (ft)	Depth to Water (ft)	Monthly Average (ft)	Current Status	Departure from Avg. (ft)	No. of meas.
BAW-10	Lakes	Overburden	23-25	1.67	2.59	High	0.92	20
FKW-01	Lakes	Overburden	45.5-47.5	10.26	12.81	Above norm	2.55	47
NFW-53	Lakes	Overburden	28-30	18.74	19.01	Normal	0.27	24
OXW-38	Lakes	Overburden	0-22.55	35.23	35.54	Normal	0.31	23
CVW-02.1	Merrimack	Overburden	59.8-61.8	39.42	41.51	High	2.17	58
CVW-04	Merrimack	Overburden	25-27	16.65	17.74	Above norm	1.09	53
DDW-46	Merrimack	Overburden	59.8-61.8	38.02	38.7	High	0.68	24
NAW-218	Merrimack	Overburden	66-68	27	28.16	High	1.16	55
CVWB-01	Merrimack	Bedrock	470-480	20.07	20.43	Normal	0.36	9
CVWB-02	Merrimack	Bedrock	0-315	14.54	14.87	Normal	0.33	9
DDWB-01	Merrimack	Bedrock	0-300	16.23	16.94	Above norm	0.71	9
HTW-05	Merrimack	Bedrock	0-102.7	48.01	48	Normal	-0.01	50
NWWB-01	Merrimack	Bedrock	0-130	3.56	3.26	Normal	0.3	9
GSW-75	Monadnock	Overburden	35.8-37.8	58.73	61.95	High	3.22	19
RGWB-01	Monadnock	Bedrock	391-401	12.22	15.12	High	2.9	6
RGWB-02	Monadnock	Bedrock	0-285	14.94	17.81	High	2.87	6
CTW-73	North Woods	Overburden	105-107	8.4	7.27	Low	-1.13	23
LCW-01	North Woods	Overburden	28-30	-	-	Not Analyzed		
SOWB-01	North Woods	Bedrock	443-453	16.85	16.57	Normal	-0.28	9
SOWB-02	North Woods	Bedrock	0-303	21.4	23.68	Above norm	2.28	10
BBW-53	Seacoast	Overburden	21-23	3.52	-	Not Analyzed		
EPW-90	Seacoast	Overburden	39.45- 40.7	26.3	28.33	High	2.03	12
EAWB-01	Seacoast	Bedrock	463-473	21.8	22.19	High	0.39	9
EAWB-02	Seacoast	Bedrock	0-323	20.68	21.02	Normal	0.34	9
NLW-01	Sunapee	Overburden	40-42	8	9.04	Normal	1.04	89
NPW-03	Sunapee	Overburden	40.5-42.5	6.63	6.08	Below norm	0.55	22
NPW-06	Sunapee	Overburden	58-60	6.78	6.14	Below norm	0.64	22
ADW-14	White Mtns	Overburden	77.5-79.5	6.18	6.58	Normal	0.4	23
ADW-15	White Mtns	Overburden	16-18	8.14	8.45	Normal	0.31	23
CBW-34	White Mtns	Overburden	21-23	12.65	12.94	Normal	0.29	23
LLW-19	White Mtns	Overburden	49.8-52.3	10.65	12.64	High	1.99	24